WHAT IS CLAIMED IS:

1. A circuit board comprising a metal plate as a base, a printed circuit attached to one side of the metal plate and an electronic component mounted on the other side of the metal plate, wherein:

the metal plate has an opening;

an insulating piece of similar thickness as the metal plate is inserted into the opening;

the insulating piece has a first through-hole;

the printed circuit is placed at a bottom of the opening;

the printed circuit has a second through-hole; and

a lead wire of the electronic component is extended in both of the first and the second through-holes and connected to the circuit pattern of the printed circuit by using a conductive metal.

2. A circuit board according to claim 1, wherein:

the electronic component has plural lead wires, and the first and the second through-holes are formed in correspondence with the plural lead wires.

3. A circuit board according to claim 1, wherein:

the printed circuit comprises a thermosetting resin film and a circuit pattern of metal foil formed on the resin film; and the printed circuit is attached to the metal plate by an adhesive layer formed on the other side of the circuit

pattern.

4. A circuit board according to claim 1, wherein:

the printed circuit is composed of a thermosetting resin film and the circuit pattern of metal foil formed on the resin film.

5. A circuit board according to claim 1, wherein:

the circuit board is used as an automotive meter panel and the electronic component is one of a connector, a motor, or a buzzer.

6. A manufacturing method of a circuit board that has a metal plate as a base, a printed circuit attached on one side of the metal plate and an electronic component mounted on the other side of the metal plate, the method comprising the steps of:

preparing the metal plate with a certain opening;

preparing an insulating piece of similar thickness as the metal plate and of size insertable in the opening of the metal plate;

preparing the printed circuit of a certain circuit pattern on a resin film;

inserting the insulating piece into the opening, and layering the printed circuit onto the metal plate with the insulating piece inserted therein;

heat-pressurizing the metal plate, the insulating piece,

and the printed circuit together by a heat-pressurizing board thereby to attach the metal plate and the insulating piece to the printed circuit; and

connecting a lead wire of the electronic component to a circuit pattern of the printed circuit through a through-hole of the insulating piece and the printed circuit by using a conductive metal.

7. A manufacturing method of a circuit board according to claim 6, wherein:

the through-hole that passes through the insulating piece and the printed circuit is formed after the step of heat-pressurizing.

8. A manufacturing method of a circuit board according to claim 6, wherein:

the through-hole in the insulating piece is formed in the step of preparing the insulating piece, and the through-hole in the printed circuit is formed in the step of preparing the printed circuit.

9. A circuit board comprising a metal plate as a base, an adhesive layer attached to one side of the metal plate, a printed circuit attached to the metal plate by the adhesive layer and an electronic component mounted on the other side of the metal plate, wherein:

the metal plate has an opening;

an insulating piece of the similar thickness as the metal plate is inserted into the opening;

the insulating piece has a first through-hole;

the printed circuit is placed at a bottom of the opening;

the printed circuit has a second through-hole,

the adhesive layer has a third through-hole,

a lead wire of the electronic component is extended in all of the first, the second and the third through-holes and connected to the circuit pattern of the printed circuit by a conductive metal.

10. A manufacturing method of a circuit board that has a metal plate as a base, a printed circuit attached on one side of the metal plate and an electronic component mounted on the other side of the metal plate, the method comprising the steps of:

preparing the metal plate with a certain opening;

preparing an insulating piece of similar thickness as the metal plate and of size insertable in the opening of the metal plate;

preparing the printed circuit of a certain circuit pattern on a resin film;

preparing an adhesive layer for the printed circuit to be attached to the metal plate;

inserting the insulating piece into the opening, and layering the printed circuit with assistance of the adhesive

layer onto the metal plate with the insulating piece inserted therein;

heat-pressurizing the metal plate, the insulating piece, the adhesive layer and the printed circuit together by a heat-pressurizing board thereby to attach the metal plate and the insulating piece with the assistance of the adhesive layer to the printed circuit; and

connecting a lead wire of the electronic component to a circuit pattern of the printed circuit through a through-hole of the insulating piece, the adhesive layer and the printed circuit by using a conductive metal.

11. A manufacturing method of a circuit board according to claim 10, wherein:

the through-hole that passes through the insulating piece, the adhesive layer and the printed circuit is formed after the step of heat-pressurizing.

12. A manufacturing method of a circuit board according to claim 10, wherein:

the through-hole in the insulating piece is formed in the step of the preparing the insulating piece, the through-hole in the adhesive layer is formed in the step of preparing the adhesive layer, and the through-hole in the printed circuit is formed in the step of preparing the printed circuit.